### STATE OF VERMONT PUBLIC SERVICE BOARD

Docket No. 6120

Tariff filing of Central Vermont Public Service )
Corporation requesting a 12.9% rate increase, to)
take effect July 27, 1998

Docket No. 6460

Tariff filing of Central Vermont Public Service )
Corporation requesting a 7.6% rate increase, to )
take effect December 24, 2000

# PREFILED SURREBUTTAL TESTIMONY OF DAVID F. LAMONT ON BEHALF OF THE VERMONT DEPARTMENT OF PUBLIC SERVICE

April 20, 2001

Summary: The purpose of Mr. Lamont's testimony is to respond to various criticisms of his prefiled testimony discussed by Central Vermont Public Service witnesses

Howland and Watts.

## Prefiled Surrebuttal Testimony of David F. Lamont

1	Q.	Please state your name and occupation.
2	A.	My name is David F. Lamont, and I am a Power Supply Planner for the Vermont
3		Department of Public Service (Department or DPS). My business address is 112 State
4		Street, Montpelier, Vermont.
5	Q.	Are you the same David Lamont who prefiled testimony in this case?
6	A.	Yes. I prefiled my direct testimony in this case on March 9, 2001.
7	Q.	What is the purpose of your testimony?
8		I respond here to various criticisms of my prefiled testimony discussed by Central
9		Vermont Public Service witnesses Howland and Watts.
10	Q.	Have you examined Central Vermont Public Service's ("CV") rebuttal testimony?
11	A.	Yes. In their March 30, 2001 testimony, CV's witnesses Howland and Watts
12		("H/W") agree with two of my proposed adjustments, agree partially on a third and
13		disagree with the remaining four adjustments. They also disagree with my suggestion that
14		refund payments made by Citizens Utilities to cover past overcharges as a result of the
15		BLFTA contract should be put into a regulatory debit and credited to ratepayers once a
16		final amount is known. Finally Mr. Boyle rebuts my charge that CV is being imprudent in
17		its treatment of maintenance expenses on its owned hydro units.
18	Q.	What are your areas of agreement?
19	A.	CV witnesses Howland and Watts agree with my adjustment of CV's anticipated
20		hydro production in the rate year. This adjustment comes about as a result of the effects

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of physical improvements to some of CV's facilities and an adjustment in the predicted timing and impact of relicensing conditions likely to be imposed in the future. Also, they have agreed to defer some VELCO costs associated with the FACTS device. As explained in H/W's prefiled testimony, there is a lag between the time when VELCO charges CV for the FACTS device and the time when it is paid out of PTF funds by the ISO. CV has agreed to book and defer this cost.

CV's witnesses point out an error in my estimation of an annual weighted average forward market price using data from NatSource. I agree with this criticism. My estimate was overstated due in part, to the fact that I included holidays as peak hours. Correcting for this error reduces my proposed adjustments by approximately \$230,000.

- Q. Where are your remaining areas of disagreement?
- A. CV's witnesses disagree with me regarding the future value of surplus energy which CV will likely generate in the rate year. Additionally they disagree about the value of ICAP which should be used in this case. We disagree on the projected energy price of two of CV's units. Finally, we continue to disagree on the treatment of Citizens Utilities overcharge on the BLFTA contract.

#### Forward Sales of Surplus Energy

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- Q. Please discuss CV's criticisms and explain in general why you think they are not persuasive.
- A. Certainly. Howland/Watts discuss at length the increased risk the company would face due to increased exposure to spot market prices. Exhibit H/W-9 illustrates an increase in the number of hours during which CV would have to purchase from the spot market as a result of a 25 MW sale of energy during the first week of July. H/W assert that a forward sale during this week would result in the purchase of an additional 1354

MWh at the market price.

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Q. Is this an accurate representation of what would happen?

Yes, but only if market prices remained at the levels assumed in the pro forma filing. If prices were to increase above those assumed, before CV would be subjected to these escalating market prices, additional CV units would dispatch, assuming CV's bidding strategy positioned them correctly. CV's peaking units also represent a "limited hedge" against rising market prices. So, any additional market purchases would only be made if the market price was lower than the bid price of any of CV's undispatched units (or if CV's fully dispatched units were insufficient to cover load).

Please relate the scenario above to CV's graph of load and resources in Exhibit - H/W-9.

Certainly. Looking more closely at the graph, the most concentrated hours of additional exposure occur on days 3 and 4 of the graph (Saturday and Sunday). Not only does CV have units which could hedge their exposure in those hours, but it is unlikely a price spike would occur on the weekend. The risk here is non-existent. Looking at the first two days (Thursday and Friday), it appears CV also has some additional reserves to cover the shaded area, given the dispatch on Monday and Tuesday. On Monday, CV has about 25 MW of reserves above its peak (even after the sale). A price spike on this day would result in a windfall for the company. On Tuesday, the hypothetical sale has created some exposure during the midday peak. However I would note that even on Thursday, a prolonged price spike would leave the Company buying in only three hours and selling in the other peak hours. Even in this most extreme day on the graph, a prolonged price spike could be a winner from a revenue perspective. Wednesday looks like the perfect day to make a forward sale. I am not saying costs would not increase if the market price were to increase in the hours of this sample week, but CV has in place some hedges that offer protection in most hours. The risk, as shown in this graph, is nowhere near as great as CV's witnesses are attempting to portray.

Exhibit DFL-4 reconstructs Howland/Watts to show a more reasonable level of exposure. To construct at this figure, I assumed CV's generation would be dispatched as it was on Thursday of this peak week which was apparently a high clearing price day. I superimposed this generation pattern on each weekday. Assuming this full dispatch of CV's available units during each weekday and discounting the possibility of runaway prices on the weekend, CV is exposed for 8 hours and a total of 81 MWh during this week. Recreating the price spike of May 8 (Exhibit DFL-5), where prices hit \$6,000/MWh, for each weekday during this week where CV is "overly exposed" shows a net revenue gain for the company - after a 25 MW forward sale - of \$3.5 million, net of the variable costs of operating additional CV peaking generation. Further, each day individually showed a net revenue inflow - even after the assumed 25 MW sale.

What about additional purchases required by a sale?

Q.

A.

On the top of page 6 of the H/W rebuttal testimony, they suggest that "if additional purchases triggered in the future periods by the forward sales are made in hours when spot market prices are higher than the hours in which the 'extra' MWh are sold, the benefits of a proformed sale will be reduced." What they fail to mention is the corollary to that which is that if the purchases are made in hours when spot market prices are lower, then the benefits are increased above what I calculated. H/W agree with this on page 10 of their testimony where they state that a windfall is no more likely than a loss.

Q. H/W, in their rebuttal testimony, say that you have assumed they will be able to sell all of their surplus but that they can't actually do that perfectly because a forward sale requires a standard amount which can be described as a rectangular block of power. Because of that, they say they can't sell it all, and any that can't be sold is transacted at the clearing price which is less than the forward price. Do you have a response to their criticism?

A.

What they say is true, and perhaps my adjustment as presented in my prefiled testimony does not represent an actual sale as much as an estimate of the <u>value</u> for excess power as reflected by the futures market. An alternative method, as suggested by H/W, to pro form a sale would be to add a fixed amount of load to CV's responsibilities, assume a revenue amount for that sale (the forward price), and assume remaining shortfalls are purchased at the spot market prices.

Q. Have you performed additional calculations?

Yes. To improve upon the flawed assumptions and incorrect calculations alleged by Howland and Watts, I performed such a calculation. Exhibit DFL-5 shows the effects of a 25 MW increase in CV's load responsibilities in each hour. This additional energy was sold at my revised estimate of monthly average market prices as shown in exhibit H/W Exhibit 10. Any surplus energy beyond that which was sold forward, was assumed to be sold at the H/W forecasted hourly clearing price. Any purchases necessitated by the forward sale, or CV's native load, were also made at the H/W forecasted hourly clearing price. The result is approximately \$2,000,000 in revenue as a result of this sale.

Since a 25 MW sale still left CV significantly surplus in energy, I tested which months could accept an additional 25 MW sale. In those months where a sale during peak hours only at the monthly average forward price produced a positive cash flow for the company, I assumed an additional around the clock sale could be made. Exhibit DFL-7 shows the result of a 25 MW sale in all months and an additional 25 MW forward sale in selected months. This pattern of forward sales results in over \$3,000,000 in additional revenue for the company. While there is no right answer regarding the appropriate level of sales or the amount of "insurance" that is appropriate, my assumption of \$2,000,000 profit from forward sales revenue remains reasonable, and, if anything, conservative.

Q. CV criticizes your use of a single set of NatSource prices as the basis for your adjustment.

Is their argument persuasive?

Q.

A.

A.

Somewhat. Some sort of average of forward prices may be more indicative of what the market is thinking during a given time period, but at the same time the prices posted on the day I wrote my testimony reflect the events and actions within the market for all the days up to that time. I don't see a large difference here. Even H/W state that prices have stabilized somewhat.

They also suggest that trading amounts as small as 25 MW can effect future prices. We heard a different story at the recent wholesale markets workshop sponsored by the Board, where Catherine Flax of Morgan Stanley stated that she felt that the NEPOOL market was maturing and used as evidence of that maturation the fact that trading up to 200 MW would not effect prices significantly.

The fact that the Natsource sheets do not provide prices for all months is not evidence that no one would purchase energy if it were offered, or that there would never be a price developed. As I stated above, I am trying to impute a value to this excess energy. The tactics which CV uses to capture that value may dictate that they sell at some future time when prices are better established, or that they stagger sales or purchases to capture market changes. H/W seem to be confusing the day to day activities of energy trading with proforming for the purpose of setting rates.

Please summarize your conclusion regarding the persuasiveness of CV's arguments against your adjustments regarding energy prices.

Because they have significant amounts of "surplus" energy," CV's ratepayers are providing the company an "insurance policy" against fluctuations in market conditions. It is reasonable for the ratepayers to recover much of the value of that insurance policy. The example H/W used to demonstrate increased exposure actually shows very little actual unhedged load exposure to extreme prices - and there is a symmetric chance of a benefit from high prices. I would note that H/W offer no support for their assertion on

page 12 of their rebuttal testimony that spot market prices are especially volatile at a time when CV is most vulnerable. I believe my example superimposing extreme energy prices shows just the opposite. Their position on this is understandable. To the extent that ratepayers provide this energy insurance for free, CV is protected in the event of an unanticipated price spike. Conversely, if prices do spike, CV has a much greater likelihood of reaping a financial benefit which is not reflected in rates.

I am not saying that CV should risk everything in the energy futures market.

Rather, I am saying that CV should manage its trading to the benefit of both the ratepayers and the Company.

Q. You also provided an energy price for DPS Witness Sherman to use in evaluating the proposed Vermont Yankee uprate. Do you continue to support that number?

Conceptually I still support the use of forward prices in establishing a value for this additional energy. If CV had this energy, they could sell all of it into the forward market and remain in the same risk position they are in today. Regardless of what the Board concludes with regard to my arguments about sales of CV's existing energy surplus, clearly any additional surplus should be valued at the forward price. I am recommending to Mr. Sherman that he use the slightly lower annual average value proposed by H/W of \$51.10/MWh as representative of the expected forward prices.

#### **ICAP Price**

A.

- Q. Please summarize CV's position on this issue.
- A. I am not exactly sure what that position is. H/W say that they disagree with my price of \$1.65 because they felt the lowest cost alternative was to wait. Presumably, they mean a price lower than \$1.65. Further, they say that at the time they filed, they did not believe that the price they filed (\$4.00) represented the price in the rate year. I am at a

loss to explain how this reasoning could lead them to file such a high price.

2 Q. Are their other arguments regarding the continuing uncertainty of ICAP prices persuasive? 3 I don't disagree with anything that they say and would agree that the situation A. 4 remains uncertain today. Again, they seem to confuse actual operation of their market 5 activities with value setting for rate purposes. While they state that they would not have 6 purchased all their ICAP in August 2000 (when the price was \$1.65), they have asked the 7 ratepayers to purchase it all at that time for \$4.00. It is possible prices could change 8 again before CV actually makes a commitment to ICAP. The best indicator of the value 9 of ICAP at the time CV filed its case is the price at which traders, active in the market,

#### **Unit Specific Prices**

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Q. What about the price forecasts of Hydro Quebec and the VEPPI units?

were trading this commodity. That price is \$1.65.

A. CV's witnesses seem to be straddling the fence on these two items. Regarding the HQ price, CV is recommending that the Board should ignore the past and look at the likely future. To compute their VEPPI allocation, they are saying ignore the future and look only at the past. To be fair, I would note that my position is straddling the same fence, but facing in the opposite direction. Since these adjustments are small and of roughly the same magnitude, it would seem reasonable to me to adopt a consistent view of the future and split the difference.

Q. What about their contention that adjusting the predicted VEPPI allocation amounts to adjusting test year loads?

I disagree. I am trying here to make a prediction of future costs using the best available information. If I were to develop an allocation using CV's test year loads, as suggested by H/W, coupled with predicted loads for the other VEPPI participants, CV's allocation would decrease further.

#### ACE RECOVERY

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- 8 Q. Have you looked at CV's position on ACE recovery and power costs?
- 9 A. Yes. In its calculation of short term production savings, CV currently uses a
  10 method which accounts for only direct power cost and T&D savings when computing lost
  11 revenue. Given the new markets, it is clear that there is additional value in DSM savings,
  12 similar to the current risk adjustment used for screening, which is not captured in the
  13 power cost offset. This value is a direct economic benefit to the Company.
- 14 Q. Please explain.
  - A. In its rebuttal testimony, CV has pointed out the volatility of the market clearing prices in recent months. Howland/Watts rebuttal at 6-8. This short term, hourly price volatility leaves CVPS at risk for unanticipated increases in clearing prices, or requires them to engage in some other risk management activity, or handicaps CV from receiving full value for its resources. The lower the load in any hour, the lower the exposure to this risk. DSM, coupled with load management techniques, offer the company effective tools with which to manage this risk.
- Q. Hasn't a risk adjustment already been included in DSM screening?
- 23 A. Yes, currently a 10% reduction in installation costs for DSM measures is assumed

for screening purposes. However, it is my opinion that a similar adjustment is also now warranted for ACE. Previously, short term market price fluctuations were not as much of a concern because under the old NEPOOL dispatch system, these costs were socialized to a large degree. Load serving entities could redispatch their system to cover load as it actually occurred after the fact. Shortfalls were "purchased" from the pool at default prices. The new market system makes each load serving entity responsible for serving its own load in every hour. This hourly, real time responsibility, coupled with the price volatility the markets have shown represents an additional risk to load serving entities.

DSM and load management are a hedge that can mitigate exposure during times of stress.

As a result of the new market system has the value of DSM increased?

Yes. As I discussed above, prior to the new market system, extreme peaks in energy costs were socialized. The new market system moves away from that socialization and puts the responsibility on each load serving entity to have energy for its load for each hour. Congestion Management System (CMS) pricing, which is on the horizon in New England, will exacerbate this situation. A load server will not only have to worry about price spikes in the NEPOOL region, but also local price spikes as well. This will increase the value of DSM and load management further.

Can this financial risk exposure be quantified?

Q.

A.

Q.

A.

I am not an expert in finance theory, but it is my understanding that there are ways to do so. I have not been able to perform that calculation for this case. However, I would note that above I suggested that CV could make about a \$3 million margin by engaging in forward sales with its surplus energy. In their rebuttal testimony, CV offered about \$1 million credit in additional sales. This difference was a "limited hedge" against an energy shortfall during a price spike. While DSM may not fully replace any supply hedge, it can supply benefits beyond the after the fact wholesale price used in the ACE calculation.

1 Q. What are your recommendations regarding ACE? Because of the additional economic value to the company arising from the 2 A. 3 circumstances of the new markets, the traditional calculation for ACE overstates the 4 impact on the company for lost sales. Because of that, ACE should be eliminated or this 5 new value should be quantified and included in the calculation. 6 Load Management 7 Q. Have you investigated CV's load management strategy? Not fully, however, it became a concern when, during discovery and deposition, 8 A. 9 CV was unable to clearly identify a link between its load management activities and real 10 time energy price levels. This seems to be an obvious link to make between the power 11 supply and load control portions of the company, but I am not sure communication here is adequate. As this excerpt from page 74 of the H/W deposition illustrates, CV appears to 12 be almost exclusively focused on maintaining a "limited hedge" with its power supply, 13 rather than employing a complete toolbox of options to deal with load and price volatility. 14 15 15 O. What are your normal practices now in terms of 16 managing that risk? 16 (Mr. Howland) Our normal practice is to 17 17 attempt to not be short of power at a time when we think 18 18 19 19 that market prices could rise, particularly -- the market we are particularly interested in is the NEPOOL hourly 20 20 21 clearing market, which becomes the market of last resort 21 22 22 if -- does that answer your question?

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2 A. I asked in discovery about CV's actual load management actions during the week of July 1-7 as depicted in Exhibit H/W-9. Exhibit DFL-8 is a table of the energy clearing 3 4 prices for those days. The italicized numbers represent the hours in which CV interrupted 5 its water heating customers. While I will readily admit that this observation is made in hindsight, and that there are competing objectives for load control, but it does not appear 6 7 that this pattern of interruptions relates to power cost management at all. CV missed 8 interrupting in every hour above \$50.00 and the interruptions occurred mostly in the 9 lowest average cost days. On holidays and days when CV was unlikely to see a system 10 peak, there were no interruptions. In my opinion, this example does not demonstrate any 11 link between load management activities and power costs. 12 Q. Should this be a tool in CV's power cost management strategy? 13 A. Certainly. Historically, load management has been successfully used to control peak demands. CV has done this. The new market structure, while not entirely removing 14 that objective, introduces new opportunities for cost mitigation with load reduction. The 15 load management program recently introduced by the ISO is one example of this. Failure 16 17 to incorporate such a strategy is not proper power cost management. 18 Q. Does that conclude your testimony?

What about the actual implementation of CV's load management strategies?

Q.

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Yes